

c) at least one temperature sensor on an exterior portion of the distal shaft section, being positioned so that the temperature sensor is disposed between two adjacent electrodes; [and]

c1 d) a metal band adjacent to and radially disposed about an outer surface of the temperature sensor and shaft; and

e) one or more electrical conductors electrically connected to the at least one temperature sensor, at least partially embedded and helically disposed within a wall of the elongated shaft.

11 18. (Twice Amended) The device of claim 1 further including a jacket

c2 disposed on and about the metal band.

sub 18. (Three Times Amended) An electrophysiology device assembly, comprising:

a) a guiding member having an elongated shaft having a proximal end, a distal end, a port in the proximal end, a port in a distal shaft section, and a lumen extending therein; and

b) an electrophysiology device slidably disposed in the lumen of the guiding member, comprising:

an elongated shaft having a proximal end, a distal end, and a distal shaft section, and a plurality of electrical conductors helically braided into the shaft;

a plurality of tubular coil electrodes on an exterior portion of the distal shaft section electrically connected to the electrical conductors, having an interelectrode spacing of about 1 mm to not greater than 3 mm;

C3
a plurality of temperature sensors on an exterior portion of the distal shaft section, being positioned so that at least one temperature sensor is disposed between two adjacent electrodes, each temperature sensor being electrically connected to at least one of the electrical conductors helically braided into the shaft; and

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a metal band adjacent to and radially disposed about an outer surface of the temperature sensor and shaft.

SWAS 20. (Three Times Amended) A method for treating a patient, comprising:

a) providing an electrophysiology device, comprising:

an elongated shaft having a proximal end, a distal end, and a distal shaft section, and a plurality of electrical conductors helically braided into the shaft;

a plurality of tubular coil electrodes on an exterior portion of the distal shaft section electrically connected to the electrical conductors, having an interelectrode spacing of about 1 mm to not greater than 3 mm; and

C4
a plurality of temperature sensors on an exterior portion of the distal shaft section, being positioned so that at least one temperature sensor is disposed between two adjacent electrodes, each temperature sensor being electrically connected to at least one of the electrical conductors helically braided into the shaft; and

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a metal band adjacent to and radially disposed about an outer surface of the temperature sensor and shaft;

b) introducing the device into the patient's vasculature and advancing the device until the distal section of the device is disposed within a chamber of the patient's heart;

c) placing at least one electrode on the device distal shaft section in contact with a desired surface of the heart chamber; and

C4 d) delivering high frequency electrical energy to the at least one electrode on the device and measuring the temperature at a temperature sensor adjacent the electrode.

22. (Amended) The method of claim [19]20 wherein the patient is treated for

C5 heart fibrillation or flutter.

Sub 23. (Twice Amended) An electrophysiology device for use within a patient's heart, comprising:

a) an elongated shaft having proximal and distal ends; and

C6 b) a distal shaft section ^{helically} a plurality of longitudinally disposed tubular coil electrodes on an exterior portion thereof, the electrodes having a maximum outer diameter of about 1 mm to about 1.22 mm and a length of about 2 mm to about 8 mm and an interelectrode spacing of about 1 mm to [about 2 mm] not greater than 3 mm, at least one temperature sensor disposed on an exterior portion of the distal shaft section between two adjacent electrodes, and a plurality of individually insulated electrical conductors at least partially embedded and helically disposed within a wall of the elongated shaft [which are each electrically connected to an individual electrode or an individual temperature sensor] each electrode and the at least one temperature sensor being electrically connected to at least one electrical conductor.

C7 29. (Twice Amended) An electrophysiology device, comprising:

a) an elongated shaft having a proximal end, a distal end, and a distal shaft section;

b) a plurality of electrodes on an exterior portion of the distal shaft section; and

c1 c) a plurality of temperature sensors on an exterior portion of the distal shaft section, being positioned so that at least one temperature sensor is disposed between two adjacent electrodes, and each temperature sensor having a conducting member comprising an annular metal band radially disposed about and adjacent to the shaft and the temperature sensor thereon, which transmits heat to the temperature sensor, and a jacket radially disposed on and about an outer surface of the metal band.

Please add new claims 36-39, as follow:

17 36. The device of claim 1 wherein the metal band is soldered to the temperature sensor.

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37. An electrophysiology device, comprising:

a) an elongated shaft having a proximal end, a distal end, and a distal shaft section;

38 b) a plurality of electrodes on an exterior portion of the distal shaft section;

c) at least one temperature sensor on an exterior portion of the distal shaft section, being positioned so that the temperature sensor is disposed between two adjacent electrodes; and